

# Curriculum Competencies

**Course: 0905-940 Power Energy Transportation**

**Date: 4/28/05**

**Program Area: Technology Education**

## **The student will:**

- Exhibit proper safety
- Demonstrate relevant interpersonal skills
- Apply correct science skills
- Apply correct math skills
- Apply correct communications skills
- Prepare resource management plan
- Demonstrate an understanding of technological systems
- Explain technological literacy
- Utilize information acquisition methods
- Identify the elements of entrepreneurship
- Make meaningful career choices
- Discuss related career requirements
- Demonstrate employability skills
- Implement suitable problem solving processes
- Demonstrate energy technology knowledge
- Define energy
- Categorize thermal energy sources
- Perform power, energy, and transportation, independent-study
- Summarize radiant energy sources
- Explain nuclear energy sources
- Distinguish chemical energy sources
- Identify electrical energy sources
- Categorize mechanical sources
- Explain fluid energy sources
- Calculate energy unit problems
- Create working energy system
- Demonstrate power technology knowledge
- Define power
- Demonstrate methods of measuring power
- Demonstrate applications of simple machines
- Differentiate simple machines
- Calculate power ratio problems
- Solve power control problems
- Demonstrate AC/DC power controls
- Demonstrate applications of power control
- Demonstrate digital electronic controls
- Demonstrate logic circuit controls
- Demonstrate hydraulic controls
- Demonstrate pneumatic controls
- Demonstrate mechanical power controls
- Identify power transmission methods
- Name heat engine parts
- Explain heat engine operation
- Demonstrate transportation technology knowledge

Identify historical systems of transportation development  
Demonstrate land transportation examples  
Demonstrate ground effect transportation examples  
Operate air transportation models  
Design space transportation models  
Create marine transportation models  
Create an interposal transportation project